13273-8

NOVEMBER 1989

ACADEMIC MEDICINE

Legal Context for Dismissals

Teaching and Learning in the Ambulatory Setting

Appleton-Lange Medical Student Essay Contest: Ethical Challenges to Physicians in the 1990s

Commentaries: Rx: Writing, The Physician-Patient Dyad

Independent Study in Medical Science

American-Soviet Medical Exchange Program

Assessments of Patients' Health in Rural Areas

A Health Promotion and Disease Prevention Curriculum

CME Programs and Physicians' Transfusion Behavior

Standardizing Dean's Letters

AAMC Data Report: Teaching Hospitals

VOLUME 64 • NUMBER ELEVEN

ASSISTANT OR ASSOCIATE PROFESSOR
(EDUCATIONAL SPECIALIST)

Requirements: Ph.D. in Education, 3-4 years' Postdoctoral experience, demonstrated record of publications.

Responsibilities: 1) Plan, implement, and evaluate research in education of Medical Students on the Surgical service as well as of Residents. 2) Serve as consultant for educational matters to the Chairman of the departmental curriculum committee as well as the departmental Chairman. 3) Plan, implement, and evaluate ways to improve teaching effectiveness of the surgical faculty. 4) Provide consultation to the third year curriculum Director for improvement of the third year curriculum for Medical Students.

Please send curriculum vitae to: **James W. Mackenzie, Professor and Chairman, Department of Surgery, University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School, One Robert Wood Johnson Place, CN-19, (JME), New Brunswick, NJ 08903-0019.**

The UMDNJ is an Affirmative Action/Equal Employment Opportunity Employer M/F/H/V.

UMD NEW JERSEY

A National Conference ...

Pass or Fail?

Examining Medical Education and Current Reforms

January 26, 27 & 28, 1990

Stanford University School of Medicine

Sponsored by the Stanford Health Policy Forum

...Featuring...

Dr. Gordon Moore: Founder of Harvard's New Pathways Program; Director of Teaching Programs

Dr. Arthur Kaufman: Program Director for Family Medicine; UNM Medical School

Dr. Howard Barrows: Dean of Educational Affairs; Southern Illinois School of Medicine

Dr. Kelley Skeff: Housestaff Program Director, Faculty Development; Stanford Medical School

...Addressing...

- Socialization of Physicians
- Minority Issues in Medical Education
- Student and Resident Hours
- Curriculum Reform
- Student Evaluation
- Clinical Teaching
- Problem-Based Learning

CME Credits Available

Registration: SHPF, Health Research and Policy Bldg., Rm. 7, Stanford University, Stanford, CA 94305 (415) 725-2243

ADVERTISING IN

ACADEMIC MEDICINE

The AAMC encourages display advertising for all academic and administrative posts in the journal, which publishes at the beginning of each month. Deadlines are two months before publication, but every effort will be made to accommodate ads received as late as one month prior to publication. "Camera-ready" copy is preferable, but the publisher will typeset and lay out copy at an additional charge.

For advertising rates and other information, contact:

Diane Sherel, (215) 546-0313

Springer publishing co

Clinical Problem-Based Learning
Workbook for Integrated Basic and Clinical Science
R.E. Waterman et al., Editors
This book provides students with techniques for developing clinical reasoning skills and integrating basic science information with everyday patient problems. Illustrated 1988/ 322 pp $19.95

Innovation in Medical Education
An Evaluation of its Present Status
Zohair M. Nooman, Henk G. Schmidt, and Esmat S. Ezzat, Editors
Bringing together the experiences of 30 medical schools, this book provides data comparing the effects of innovative versus conventional medical curricula. Also discussed are the possible effects of changes recommended by the GPEP report. Dec. 1989/ 448 pp (est)

Successful Faculty in Academic Medicine
Essential Skills and How to Acquire Them
C.J. Bland et al., Eds. Identifies and describes skills physicians need to succeed as faculty and proposes detailed plans for teaching these skills through a model faculty development curriculum. 1989/ 336 pp/ $38.95.

Springer Publishing Company
536 Broadway • New York • NY • 10012 H16

Letters to the Editor		667
Research Reports	Patients' and Physicians' Assessments of Patients' Health in Rural Mississippi *by* Paul C. Lampley, Ph.D., *and* Bruce Randolph, M.D., M.P.H.	669
ARTICLES	A First-Year Problem-based Curriculum in Health Promotion and Disease Prevention *by* William C. Taylor, M.D., Richard J. Pels, M.D., *and* Robert S. Lawrence, M.D.	673
	Assessing University Nephrology Training as Preparation for Community Consultative Practice *by* Richard S. Muther, M.D., Marilyn Murray, R.N., *and* William M. Bennett, M.D.	677
	Effects of a CME Program on Physicians' Transfusion Practices *by* Alan L. Hull, Ph.D., Jay Wasman, M.D., *and* Lawrence T. Goodnough, M.D.	681
	Evaluating Preclinical Medical Students by Using Computer-based Problem-Solving Examiantions by Ronald H. Stevens, Ph.D., Anthony R. Kwak, Ed.D., *and* J. Michael McCoy, M.D.	685
SHORT PAPER	A New Approach to Standardizing the Dean's Letter *by* Norma E. Wagoner, Ph.D., *and* J. Robert Suriano, Ph.D.	688
BRIEF COMMUNICATIONS	A Comparison of Students in Six-year and Traditional Eight-Year Medical School Programs on Measures of Personality and Stress Early in Medical School *by* Ronald G. Nathan, Ph.D., Frances E. Nixon, M.D., Lee Bairnsfather, Ph.D., John H. Allen, Ph.D., *and* Mary Hack, J.D.	690
	Cross-Cultural Validation of the Doctor-Patient Scale *by* Ronald J. Markert, Ph.D.	690
	Use of Class Ranking in Deans' Letters *by* Clinton H. Toewe II, M.D., *and* David R. Golay, M.U.R.P.	690
	Analysis of Student Time Allocation on a Medicine Clerkship *by* Ruth-Marie E. Fincher, M.D., Lloyd A. Lewis, Ph.D., *and* Leonard D. Nance, III, M.S.	691
AAMC Data Report	Characteristics of COTH Member, Other Teaching, and Non-teaching Hospitals, 1987 *by* Joyce V. Kelly, Ph.D.	692
Bibliography		694

PUBLISHING SERVICES: Hanley & Belfus, Inc. 10 South 13th Street, Philadelphia, PA 19107

NOVEMBER 1989
VOLUME 64
NUMBER ELEVEN

ACADEMIC MEDICINE

JOURNAL OF THE
ASSOCIATION OF
AMERICAN MEDICAL
COLLEGES

EDITOR: Addeane S. Caelleigh

DEPUTY EDITOR: Albert Bradford

SUBMISSIONS EDITOR: Christopher Greene

EDITORIAL ASSISTANT: Lisa R. Dittrich

PUBLISHER'S EDITOR: Sandra A. Lovegrove

ASSOCIATE EDITORS
Innovations in Medical Education
Wayne K. Davis, Ph.D.
University of Michigan Medical School

International Medical Education
David S. Greer, M.D.
Brown University Program in Medicine

Informatics
Daniel R. Masys, M.D.
Lister Hill National Center for Biomedical Communications

Book Reviews
Sherman M. Mellinkoff, M.D.
University of California, Los Angeles School of Medicine

CONSULTING EDITORS
L. Thompson Bowles, M.D., Ph.D.
George Washington University
School of Medicine and Health Sciences
Milton Corn, M.D.
Georgetown University School of Medicine
Robert M. Heyssel, M.D.
The Johns Hopkins Health System
Donald G. Kassebaum, M.D.
Association of American Medical Colleges
Russell Miller, M.D.
Howard University
Jay P. Sanford, M.D.
Uniformed Services University of the Health Sciences
F. Edward Hébert School of Medicine
Martha Vaughan, M.D.
National Institutes of Health

OFFICERS OF THE ASSOCIATION
Chairman
D. Kay Clawson, M.D.
University of Kansas Medical Center School of Medicine

Chairman-Elect
David H. Cohen, Ph.D.
Northwestern University

Immediate Past Chairman
John W. Colloton, M.A.
University of Iowa Hospitals and Clinics

President
Robert G. Petersdorf, M.D.

Chairman, Council of Deans
L. Thompson Bowles, M.D., Ph.D.
George Washington University
School of Medicine and Health Sciences

Chairman, Council of Academic Societies
Ernst R. Jaffé, M.D.
Albert Einstein College of Medicine

Chairman, Council of Teaching Hospitals
Gary Gambuti
St. Luke's-Roosevelt Hospital Center

EDITORIAL BOARD

L. Thompson Bowles, M.D., Ph.D. (Chairman)
George Washington University
School of Medicine and Health Sciences
Philip C. Anderson, M.D.
University of Missouri, Columbia School of Medicine
G. William Bates, M.D.
Medical University of South Carolina College of Medicine
Nancy E. Gary, M.D.
Albany Medical College
David S. Greer, M.D.
Brown University Program in Medicine
Paul F. Griner, M.D.
Strong Memorial Hospital
Rochester, New York
Kaaren I. Hoffman, Ph.D.
University of Southern California School of Medicine
John E. ives
St. Luke's Episcopal Hospital
Houston, Texas
Fernando S. Mendoza, M.D.
Stanford University School of Medicine
Gordon S. Page, Ed.D
University of British Columbia Faculty of Medicine
Hugh M. Scott, M.D.
Bishop's University
Lennoxville, Quebec
Charles E. Spooner, Jr., Ph.D.
University of California, San Diego School of Medicine
Manuel Tzagournis, M.D.
Ohio State University College of Medicine

Academic Medicine (ISSN 1040-2446) is owned and published monthly by the Association of American Medical Colleges, One Dupont Circle, N.W., Washington, DC 20036. Publishing services by Hanley & Belfus, Inc., 210 South 13th Street, Philadelphia, Pennsylvania 19107. Second-class postage paid at Washington, DC and additional mailing offices.

Copyright 1989 by the Association of American Medical Colleges. All material subject to this copyright may be photocopied for the noncommercial purpose of scientific or educational advancement. Printed in the U.S.A.

Subscription rates: U.S., Canada, Latin America—$60.00 per year and $7.00 per single copy ($30.00 per year for students); all other locations—$70.00 per year and $8.00 per single copy.

All advertising material published in this journal is intended to conform to ethical standards, but acceptance does not imply endorsement. The views expressed in all articles and features in this journal are those of the authors and do not necessarily reflect the position of the AAMC.

CORRESPONDENCE
Manuscripts: The Editor, *Academic Medicine*, Association of American Medical Colleges, One Dupont Circle, NW, Washington, DC 20036.

Advertising: Diane Sherel, Advertising Manager, Hanley & Belfus, Inc., 210 South 13th Street, Philadelphia, PA 19107; (215) 546-0313.
Subscriptions and changes of address: Membership and Publication Orders, AAMC, One Dupont Circle, NW, Washington, DC 20036.
Cancellations of an *Academic Medicine* subscription must be submitted in writing to Publication Orders, AAMC, One Dupont Circle, NW, Washington, DC 20036. Claims for back issues will be honored for only the three months before the cancellation.
Reprints: Request reprints directly from the authors of articles, not from *Academic Medicine*.
POSTMASTER: Send address changes to *Academic Medicine*, AAMC, Suite 200, One Dupont Circle, NW, Washington, DC 20036.

DATA REPORT

Characteristics of COTH Member, Other Teaching, and Non-teaching Hospitals, 1987

Teaching hospitals,* which provide settings for the clinical education of physicians, nurses, and most other health care workers, comprise 22% of all short-term general non-federal hospitals (hereafter referred to as hospitals) in the country. Those major teaching hospitals that are members of the Council of Teaching Hospitals (COTH)† represent 6% of all hospitals and 27% of all teaching hospitals.

Urban or rural location and number of beds are the predominant structural factors distinguishing teaching and non-teaching hospitals. Virtually all COTH members (99%) and nearly all other teaching hospitals‡ (91%) are located in urban areas, while only 42% of non-teaching hospitals are urban. The number of hospital beds also is closely associated with teaching status. In terms of average bed size, COTH members have 548 beds, other teaching hospitals have 288 beds, and non-teaching facilities have 114 beds. Thus, the clinical education of future practitioners occurs almost exclusively in large urban hospitals.

Although they represent only 6% of all hospitals, COTH members account for 21% of all hospital beds, 23% of hospital admissions, and 28% of hospital outpatient visits. All teaching hospitals together account for 22% of hospitals and approximately half of hospital beds, admissions, and outpatient visits. Hospital occupancy rates also are associated with teaching status: on average, 77% for COTH members, 65% for other teaching hospitals, and 51% for non-teaching hospitals. However, there is wide variation among non-teaching hospitals, with small rural hospitals having the lowest rates.

COTH hospitals are the locus of clinical education for 79% of housestaff (interns and residents), while 19% train in other teaching facilities. Eighty-five percent of other health care workers receive their training in teaching hospitals (data not shown). The large number of residents (on average, 136 full-time-equivalent positions for COTH members) contribute a substantial quantity of medical services to patients hospitalized in major teaching hospitals.

COTH member hospitals provide a disproportionate share of care to Medicaid and charity patients. While accounting for 23% of total hospital admissions, COTH members admit 34% of all Medicaid patients and provide 59% of all charity care, measured by the dollar value of uncollectible charges. COTH hospitals provide a greater share of unreimbursed care for several reasons: their urban locations, the presence of large outpatient departments, the inclusion of many large urban municipal hospitals among COTH members, and hospital policies of accepting low-income and uninsured patients.

The average cost per adjusted admission (the number of

*Teaching hospitals are defined as institutions participating in one or more accredited graduate medical education (GME or medical residency) programs that provide supervised clinical training for recent medical school graduates. Accreditation is provided by the Accreditation Council for Graduate Medical Education.

†To qualify as teaching hospital members of COTH, hospitals must sponsor or significantly participate in at least four active accredited residency programs. At least two of these programs must be in medicine, surgery, obstetrics-gynecology, pediatrics, family practice, or psychiatry. Exceptions to the requirement for four residency programs may be made for specialty institutions.

‡Other teaching hospitals are those non-COTH institutions participating in one or more accredited GME programs.

Table 1

Selected Operating Characteristics of Teaching and Non-teaching Hospitals, 1987*

Characteristic	Teaching Hospitals		Non-teaching Hospitals	All
	COTH Members	Others		
Number	358	927	4,337	5,622
Percent of all hospitals	6	16	77	100
Percent urban	99	91	42	53
Average number of beds	548	288	114	170
Percent of all beds	21	28	52	100
Percent of all admissions	23	29	48	100
Percent of all hospital outpatient visits	28	27	45	100
Percent occupancy	77	65	51	55
Percent of all housestaff	79	19	1	100
Average number of housestaff (FTE)	136	13	0	11
Percent of all Medicaid admissions	34	27	39	100
Percent of all charity care	59	25	16	100
Average cost per adjusted admission ($)	5,511	4,195	3,075	3,415

*The study population was all short-term general non-federal hospitals. For definition of other terms, see the text and text footnotes. Source for data: American Hospital Association Annual Survey Data, 1987.

admissions adjusted to include volume of outpatient activity) also is related to teaching status. Other teaching hospitals have an average cost per adjusted admission that is 36% higher than costs in non-teaching hospitals ($4,195 compared with $3,075). For COTH members, costs are 31% higher than those in other teaching hospitals ($5,511 compared with $4,195). Investigators have not determined precisely why teaching hospital costs are higher and posit a number of determining factors: treating patients who are more severely ill or have more complicated illnesses; higher wage rates and other expenses associated with an urban location; providing more intensive treatment, including more tests, ancillary services, and nursing care; acquiring and operating advanced technology; maintaining stand-by capacity associated with a referral center; and inefficiencies associated with educating residents.

In addition to their patient care and educational missions, teaching hospitals are the primary sites of clinical research, which accounts for additional operating costs that are incompletely funded. The 123 academic medical centers§ represented in COTH play a major role in the development and dissemination of biomedical and health services research. These research efforts require the combination of expert staff and sophisticated technology that characterizes major medical centers.

Joyce V. Kelly, Ph.D.

Dr. Kelly is associate vice president, Division of Clinical Services, Association of American Medical Colleges, Washington, D.C.

These analyses were conducted with support provided by The Commonwealth Fund and data provided by the Hospital Data Center of the American Hospital Association.

§Academic medical center hospitals are defined as those COTH members under common ownership with a college of medicine, or having the majority of medical school department chairmen as the hospital chiefs of service, or having the chairmen responsible for appointing the hospital chiefs of service.